audio (e.g., per user and/or system preferences) to speakers **2430**(**1**)-(**2**) based on a type of media. For example, sports programs and music, for instance, may be transferred throughout the home, while movies may be paused when the user leaves, receives a phone call, or the like. One of ordinary skill in the art with the benefit of this disclosure would appreciate the many modifications, variations, and alternative embodiments thereof.

Remote Control for Use in Certain Embodiments

**[0172]** In some aspects, a remote control can be used to contextually control media, appliances, IoT devices, etc., throughout the one or more rooms by pointing the remote control at a target device and sending a command. In conventional remote control devices, remote controls are often paired with the various devices that they are configured to control, which typically requires a setup process. Aspects of the invention may include a remote control that can control any device, appliance, or system in a home without any pairing procedures or association with the particular device being controlled. This is possible due to a combination of the digital floor plan of a structure (e.g., building) and a dead reckoning system that allows the remote control to know its orientation in 3D space within the structure. Thus, the system determines which direction the remote control is pointing, determines what device(s) the remote control is pointing at, determines what functions are being input to the remote control, and contextually controls the device(s) that the remote control is pointing to based on the input to the remote control and the functional/operational capabilities of the device(s). For example, a user may point the remote control towards a first media device (e.g., a television). The system and/or the remote control determines that the remote control is pointing towards the direction of the television by way of the dead reckoning system on the remote control, and the system knows that the television is located in that directions by way of the digital floor plan. If the user presses a button, for example, while pointing at the television, a paused televised program may start playing. However, if the same button is pressed while the remote control is pointing at a light source (e.g., the light source being included in the digital floor plan), the light may toggle its power. Although the embodiments described herein primarily discuss a remote control device, other implementations of the remote control are possible including adaptation of a mobile device (e.g., smart phone, watch, etc.) or other mobile, user controllable interface, as would be appreciated by one of ordinary skill in the art with the benefit of this disclosure.

**[0173]** In some embodiments, media may be accessed by the remote control and the user may "flick" or move the remote control towards a media device to transfer the media to that device. For instance, in an example, a user may be listening to a sports game on a radio. The user may select the radio by pointing the remote control to the radio and then gesturing from the radio to a television in order to move the content to the television. A media system may then find the sports game on a particular channel and configure the television to play that channel. This all can be performed because the remote can provide information corresponding to its direction and the underlying system (**2000**) knows where the corresponding devices are located. As such, there may not be a direct communication between the remote control and the media device (e.g., television or audio system), as in conventional devices, but a communication with system **2000** to indicate that a function has been entered by a user on the remote control and a direction or gesture entered via a user interface on the remote control, which can be used to determine how the function is implement. In the example above, the function can be to transfer currently played content from an audio device to a display device, as described above.

**[0174]** FIG. **25** shows a remote control **2500** configured to control media and route control signals to various appliances, media, accessories, and environmental controls, according to certain embodiments. Remote control **2500** can include a housing **2505** with input elements **2510** and **2520** disposed thereon. Input element **2510** may be a multi-button selection switch, as shown, or any other suitable input element including a touch sensitive touch sensor, touch sensitive display, buttons, switches, or the like. Input element **2520** can include a touch sensitive, depressible button to allow a user to input data. Remote control **2500** can be sized to be hand-held by a user and may include one or more processors (e.g., micro-controller, processor, ASIC, etc.); a input/output module controlled by the processor(s) and configured to control input (user inputs including button presses, touch screen controller inputs, etc.) and output (e.g., display, control signals, etc.) functions; a communications module to facilitate communication of the remote control with other devices (e.g., Bluetooth® radio, IR blaster, UWB, etc.), system **2000** (or other systems described herein), or a combination thereof, memory storage element(s); a dead reckoning system (e.g., IMU based, UWB, a combination thereof, etc.) configured to determine the remote control's orientation within (which can be used by system **2000** to determine what remote control **2500** is pointing at, how it is oriented, etc.), and the like. In some embodiments, remote **2500** may include some or all aspects of system **2700** described below.

**[0175]** In certain particular embodiments, remote **2500** can support enhanced TV navigation, text input, gaming, and more. Remote control **2500** may include two recessed touch pads (with an integrated button) that can operate as the universal buttons for interacting with one or more media systems, modular multi-host systems (as described above), or the like, or a combination thereof. In some implementations, remote control **2500** may have a symmetric configuration that reorients the controls depending on which end is facing a device currently being controlled (e.g., the television). Remote control **2500** may be turned sideways and operate in a gaming and text entry mode, for example. In gaming mode, the two touchpad can operate as either as a joystick or a button pad. For text entry mode, each touchpad may control half of the keyboard. Controls for media control mode (e.g., a TV mode) may be pushed towards a gestural system, where for example a button press and hold on a touchpad can cause a marking menu at the bottom of the TV to be generated. To select an option, a user can swipe in the desired direction and release the button. To indicate which direction the swipe is headed, the selected menu item may pop up on the controlled device. One of ordinary skill in the art with the benefit of this disclosure would appreciate the many modifications, variations, and alternative embodiments thereof.

**[0176]** Alternatively or additionally, some user interface (UI) elements on the remote control (e.g., home, play/pause, volume) could be hidden elements on the touchpad that are